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ABSTRACT

The purposes of a study were to (1) obtain the perceptions of state directors of adult education on selected research topics; (2) identify national priorities that will have an impact on the adult education program; and (3) investigate adult education programs that could enhance the educational development of 52 million educationally disadvantaged adults in the United States. The study identified selected categories with supporting elements that could be useful in strengthening adult education. The literature review focused upon five major research areas: (1) the nature and extent of adult literacy; (2) the most cost-effective means of reaching the illiterate population; (3) the potential use of technology in adult education programs; (4) supporting exemplary cooperative adult education programs; and (5) models and means for improving adult education opportunities for elderly individuals and adult immigrants. A 5-point variation of the Likert scale was developed for participant responses to 37 research-related statements. Of the 57 state directors of adult education to whom this research priorities' instrument was sent, 27 responded, a 45.6% rate of return. Results from the data collected were sufficient to obtain a computed mean score and rank order listing for each statement, percentage distribution of responses for the three classifications, the number of responses obtained for each statement, and a ranked mean score for all five research categories. The concern of the respondents in selecting student outreach and recruitment as the most important statement clearly recognizes the difficulties involved in recruiting students throughout the United States. (Fifty-eight references and seven tables are included.) (NLA)

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AN EXAMINATION OF RESEARCH PRIORITIES IN ADULT EDUCATION

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CHAPTER ONE

INTRODUCTION

Overview

During this era of increased awareness and program accountability in adult education many policy makers, practitioners, and researchers are asking what research can do to make adult education more effective. The high level of concern for optimizing research lends itself to identifying priorities that could make a difference in expanding the knowledge base for adult learning, utilizing technology or identifying factors that facilitate student recruitment and retention. In turn those findings could be used to improve the excellence of the State-administered adult education program. Consequently, it is important that priorities be dveloped and frequently updated to ensure their relevancy to the current demands of adult education.

Historically, development and demonstration research has played a vital role in numerous Section 309 special projects and teacher training projects funded under the Adult Education Act from FY 1966 - FY 1974. Following that period, discretionary funding for special projects and teacher training was transferred to the States as part of their Section 310 authority. During that interval when the Division of Adult Education was administering Section 309, a number of projects were instrumental in generating improvements throughout many components of the adult education programs.

One Section 309 special project receiving considerable national publicity was the Adult Performance Level Project, conducted by the University of Texas at Austin. Outcomes from that project (1972-1975) identified student needs in relationship to functional literacy skills and competencies needed to cope with current societal demands. Tangible outcomes from that Joint Dissemination Review Panel (JDRP) validated project are visible even today within a number of State and local instructional programs. Results from a number of other projects demonstrated effective procedures for improving coordination and linkages, strategic planning, working with community based organizations, evaluation, computer-assisted instruction, and other new educational technologies.

In addition to those special projects, there were numerous models that virtually encompassed the entire spectrum of staff development, which were developed through the teacher training component of Section 309. Projects were designed for training of teacher educators, State Directors of Adult Education, administrators, ABE and ESL teachers, curriculum and reading specialists, and paraprofessionals. Through the efforts of those Section 309 project directors and trainers, many products were disseminated to program participants to use in revitalizing their instructional programs through various training programs and networking activities.

One major innovative thrust for coordinating improved staff training throughout the country was the funding of ten Regional Staff Development Projects (1972-1974) based upon the geographical model established by the U.S. Office of Education for coordinating activities with their Regional Offices and State agencies. Extensive networking activities provided by the Office of Education's Adult Education Regional Program Officers during the critical initial phase of those Regional Staff Development projects greatly facilitated their implementation. The Regional Program Officers also provided a vital role in linking the post-secondary training institutions and adult education practitioners with the administrators.

Following an intensive six month planning period, the three year Regional Staff Development Projects were implemented within the ten Regions. A virtual explosion of professional conferences, workshops, inservice training programs, courses, and new programs of study in adult education occurred as a result of this initiative. For many practitioners this was perceived as a resurgence of professionalism through which many thousands of adult educators received training and greatly benefited from the countless new products and improved program practices that were widely disseminated.

Over this 20 year history of special projects at Federal and State levels, an extensive resource base has been established for examination. Outcomes from those myriad projects have addressed many needs, practices for replication, and further activities for research and development. There

is a need at this time to ascertain information about research priorities from State Directors of Adult Education. Results from this study could serve as a guide for adult education researchers, decision makers, and practitioners in conducting future research, demonstration, or evaluation types of projects to improve various components of adult education. Additionally, this new knowledge pertaining to research priorities could stimulate activities addressing those concerns for strengthening the research base of professional literature available to adult education practitioners.

Purposes of This Study

The purposes of this study were to: (1) obtain the perceptions of State Directors of Adult Education on selected research topics; (2) identify national priorities for adult education that will have an impact on the adult education program; and (3) investigation in the field of adult education that could enhance the educational development of the 52 million educationally disadvantaged adults in the United States.

Statement of the Problem

Within the adult education program many issues, concepts, and problems are continuously being submitted for analysis as well as for the purposes of meeting program accountability requirements. Numerous research topics have been identified from national impact studies, longitudinal studies, program evaluations, annual performance reports, and ERIC. Quite frequently however, those program issues and and topics are not ranked

in terms of program priorities or national needs as they relate to the adult education program. Consequently a need exists to set priorities and develop suitable research topics for conducting research in adult education. An examination of the Fiscal Year 1988 President's Budget for the Department of Education revealed that discretionary funds were requested to support applied research, development, demonstration, evaluation, and related activities that will contribute to the improvement and expansion of adult education in the United States. Given an absence of discretionary authority for adult education since 1974, it is appropriate to research needs for adult education. This report identified selected categories with supporting elements that could be useful to decision makers and practitioners in strengthening adult education.

CHAPTER TWO

LITERATURE REVIEW

Research Areas

In identifying research topics for adult education and literacy education a number of diverse demands and interests surfaced relating to national needs and interests. Other research topics addressed the perceived needs of researchers, State Directors of Adult Education, organizations, and practitioners. One could also anticipate further differences in research priorities that could be obtained from an extensive study as contrasted to one with a more limited focus.

The literature review focused upon five major research areas as listed below:

1. Examination of the nature and extent of adult literacy.

2. Examination of the most cost-effective means for reaching the illiterate population.

3. Examination of the potential utilization of technology in adult education programs.

4. Analysis of supporting exemplary cooperative adult education programs which combine the resources of business, schools, and community organizations.

5. Development of models and means for improving adult education opportunities for the elderly and adult immigrants.

Nature and Extent of Adult Literacy

From a broad perspective Delker (1979) indicated his concern for understanding adults by looking carefully at how adults learn today, what they are interested in learning, and where they want this learning to occur. Merriam (1984:24) indicated that adult development is still a relatively new area of investigation that received a major impetus from the 1964 landmark study by Neugarten. It should be emphasized that there are many unresolved issues and contradictory findings relating to how adult development impacts program development, instruction, and counseling.

Student outcomes were identified in an analysis of longitudinal and impact studies conducted by Towey (1987) as a means for determining program effectiveness. Copeland (1985) indicated a necessity to further analyze student outcomes in the following areas: academic achievement, economic gain, community participation, and personal development. Results from the longitudinal study by Griffith (1974:3) raised the concern that attributing post-program success, without valid control groups, to the effects of

the program and not to maturation, changes in the labor markets, etc., was deemed highly presumptive. Further clarification of student outcomes was noted in the Darkenwald study (1984:92) which revealed a certain degree of incongruence between the stated goals of the Adult Education Act and the goals articulated by program participants. The importance of this factor was based upon results from his research in which only 43.6% of the participants listed "obtaining a diploma" or "completing school" as the main reason for enrolling in the program.

In order to maximize new research in adult literacy, the research should concentrate upon those items that we need to know most about that make a difference. A strong rationale was presented by McGrail (1984:21) for setting research priorities relating to the identification of characteristics of illiterates that may be related to their enrollment and persistence in a literacy program. In Scanlon's (1984:156) review of the literature concerning barriers to participation, the two most frequently cited reasons for non-participation were lack of time and cost. Other significant deterrents were inconvenient scheduling, lack of information about education opportunities, job responsibilities, home responsibilities, lack of interest, and lack of confidence. Other aspects of literacy perceived by Johnson (1985:17) and Phillips (1985) as being important were the unique attributes of beginning readers including their proper learning diagnosis and assessment. Gaps in present knowledge in literacy development during childhood and the functional requirements in diverse real life settings where literacy demands occur were noted by Johnson (1985:21).

Further clarification of the content areas needed for adult education was indicated by Phillips (1985:25). For many adults, information on the family is needed at critical points of intervention in their lives. More pointedly, Miller (1984:2) raised the issues of the family-career connection model pertaining to the roles assumed by family members, stages in the family cycle, and the educational intervention essential for fulfilling the career expectations or opportunities for family members. Further inquiry is also merited into the domain of high interest curricula which could ameliorate some of the concerns relating to school attendance and student dropouts.

Results from a job related study by Sticht (1984:30) revealed that as students increased their general competency in a specified domain there would be an improvement in their level of general literacy. Development of domain referenced tests could more effectively measure those newly acquired abilities of adult learners. Additional research is needed to ascertain whether or not domains that cut across specific domains could be identified and taught as superordinate generic skills of general literacy.

Although the literature in teaching adults frequently refers to the usage of appropriate and different types of instruction to match the students' learning styles, several researchers indicate that this is not always readily accomplished. Fourier (1984:147) reported that more information was needed to develop procedures and means for differentiating learning characteristics of individual students and matching them with the

appropriate instructional mode. The most promising research topic, according to Knox (1977:570), dealt with the modification of the learning style to increase effectiveness from instruction.

For some students, according to Phillips (1985), peer support was an important factor in their success. A variation of this theme, "The Buddy System," was used effectively in the military services. Moving from a dependency mode to one of independence and becoming a self-directed learner who takes control over his or her learning, personal, and social development has been frequently mentioned by Knowles (1980:91), in his lectures, as well as in several of his publications.

Further development of models for helping adults who participate in adult classes to work more effectively in helping their children with school work was revealed in several studies. In Fairfax, VA. a recent follow-up study of participants reported by Plum (1985:4) indicated just under 1/3 of those respondents helped children with their homework. A similar finding (29%) was reported by Hollar (1985:7) at Caldwell Community College. Of more importance perhaps was the finding by Haley (1985:12) that reported 38% of parents <u>often</u> helped their children before participating in adult education as contrasted to 62% <u>often</u> helping their children upon completing adult education instruction.

Nicksie (1985:6) focused upon the need for doing more with intergenerational education as this could have a multiplier effect in enabling parents taught in the adult education program to become more effective in helping their children with their homework. Her research into this area was based on several findings:

- Adults who have children in school tend to stay in tutoring longer.
- Children whose parents participate in adult basic education show more positive school behaviors and attitudes.
- Children whose parents read seem to be more successful as early readers.

Cumulative effects of teaching those adults could increase the opportunities of the next generation to improve their lives and means for advancement through increasing their educational skills and competencies. Pinpointing methods for achieving high rates of parental involvement in the education of their children could markedly extend this practice and achieve high rates of return on the investment in parent education.

Cost-Effective Means for Reaching the Illiterate Population

All too frequently, the concern for cost-effectiveness is inadequately explored as a means for decision making. This issue has been dealt with in a number of impact or outcome studies that have been completed in such states as Arizona, Minnesota, Montana, New Jersey, Ohio, and Virginia.

Those studies supported Darkenwald's thesis (1985:1) that the most important outcomes of research are the applications of education to functioning in everyday life.

Further, some outcome studies that have been conducted have not employed a rigorous research methodology. In his analysis of State adult education evaluations Towey (1985:9) indicated more longitudinal studies were needed to determine student outcomes over a period of time in receiving more education and training, ability to function better in society, and their perceptions of the effects of adult education. Griffith contends (1982:40) that we need to know more about participation and dropouts; and the adult education community at large would benefit from more research in those areas.

For many adults, networking enables them to cope with their environment as well as to provide a measure of support in an unfriendly or unsupportive atmosphere. Networking was indicated by Reder (1985) as being helpful in drawing poor and elderly individuals into programs. Further information is needed to determine how to strengthen existing networks to enable them to better serve illiterate adults and to help students access other training programs.

An examination of FY 1985 adult education program data by Pugsley (1986) revealed that 24,921 volunteers provided programs services to participants in adult education. Of that number 11,473 provided instructional services (tutoring) while the remainder performed administrative counseling, or paraprofessional types of services. Harman (1984:32) indicated considera-

ble uncertainty about the effectiveness of programs that relied heavily upon volunteer services. Considerably more data needs to be obtained to indicate their individual or collective effectiveness, how volunteers can be best utilized, and lastly, what resources are needed to enable them to effectively perform their assignments.

Utilization of Technology in Adult Education Programs

During the initial years of the adult education program, the U.S. Office of Education recognized the importance of technology in the instruction of adults. One early example of that concept was the Section 310 televised Rural Family Development Project that provided instruction to adults in Wisconsin. Many States have been utilizing television in the transmittal of adult education and General Educational Development programs. Alaska pioneered the utilization of satellite television in providing instruction to students dwelling in remote areas of the State. More impact assessment of the effectiveness of television was recognized by Taylor (1986) to maximize this delivery system. Marchilinus (1985:viii) suggests that the nation has barely scratched the surface in utilizing television technologies in meeting the literacy challenge. Adair (1982:31) identified the use of television in adult education as one of the three priorities for research.

Radwin suggested we find out more about computer-assisted instruction through a survey of current applications. Fingeret (1984:35) revealed the potential power of computers is only vaguely understood as a medium for

drill and practical instruction, or for yet unknown aspects of learning and development. Even though educational technology has been utilized in a variety of applications in adult education, Phillips (1985:16) raised a concern that only limited technology approaches are now being used in literacy programs for adults.

Supporting Exemplary Programs Which Combine the Resources of Business, Schools, and Community Organizations

One consideration suggested by Fingeret (1984:20) deals with the orientation of working with participants as individuals as opposed to the community oriented programs based upon a different set of assumptions. Adult education and literacy volunteer programs generally isolate literacy skill acquisition from the problems of the participant, and through this instruction facilitate the movement of individuals into society. This approach is in marked contrast to community oriented programs that focus on specific problem areas, such as health care and housing, which are identified by members of the community. The teaching of literacy skills is then perceived as necessary to attain that community goal.

Boggs (1986:1-12) has recently argued that adult educators could become more assertive in community problem solving through citizen education and action in promoting learning and intelligent choices. Limited usage of community education consequently lessens opportunities for adults to become involved in local, State, and national issues, problems, or

concerns. Further analysis of community oriented education could identify means for enhancing a community oriented format to achieve credible collective outcomes.

Griffith indicated (1982:40) that little has been done to improve our knowledge of how government can assist with the development of a viable delivery system involving all the providers in a local community. Fellenz (1982:38) indicated a need for more research in community development. Brady (1982) cited a concern with the research pertaining to community educational programs which could be better planned, developed, administered, and evaluated.

Training of the personnel involved in adult education evokes a spectrum of ideas for research deemed important for improving teacher effectiveness. Radwin (1984:39-53) describes the need for supporting research on teaching strategies, competency based certification system, and staff development on a regional basis. One major concern for research relating to continuing professional education (CPE) raised by Cervero (1984:144) focused upon analyzing the effectiveness of CPE rather than determining its effectiveness by measuring the participants' application of the newly acquired skills and knowledge. Fingeret (1984:28) revealed that relationships between training and teaching effectiveness have not always been conclusive. It was postulated by Phillips (1985:19) that a training model needs to be developed that would enable program staff to conduct their own training. Data from the Pugsley statistical report (1986) revealed that 27,930 (80.8%) of the 42,827 local teachers in adult education programs were employed part-time.

Despite the high (80%) level of part-time instructors, there has been very little research conducted relating to increasing their effectiveness or identifying their needs according to Draper (1985:165).

Improving Adult Education Opportunities for the Elderly and Adult Immigrants

In addition to the many millions of immigrants already established in the United States, there are approximately 600,000 new immigrants annually entering the United States which increases the magnitude of this need. In addition to those population groups, there are another 2.9 million eligible legalized aliens whose citizenship status is now being clarified under the Immigration Act of 1986. Under this Act, many of those adults will need English literacy and citizenship training in order to meet the eligibility requirements for U.S. citizenship.

Results of the Department of Education's 1982 Census Bureau's English Language Proficiency Survey (1986) revealed that 44 percent of all illiterates and adults are over 50, more than one-third (37%) speak a non-English language at home, and 21% entered the United States within the past six years. A critical reflection on the concern for the immigrant was noted by Harman (1984:16). He postulated that their failure to become absorbed and acculturated in the United States could result in the formation of pockets of malcontent, alien to mainstream American life. Conditions of this nature could result in a continuation of illiteracy for another generation along with other problems such as poverty, unemployment,

low income, and substandard housing. Measures for increasing immigrant participation in adult education need to be analyzed or further developed as models for intervention throughout their lives.

Older adults have a range of educational needs and concerns that include furthering their development, moving towards self-actualization, or facilitating transitions in their personal and social lives. There are also other elderly who have a vague sense of resignation and dissatisfaction. Merriam's research (1984:20) revealed transportation and scheduling were crucial factors in planning programs for older adults to enable them to better cope with the tasks of older adulthood. Copeland (1982:37) stressed the necessity for clarifying the role of continuing education with older adults to be a major need.

Substantive information for the literature review was obtained in reports from the Adult Education Clearinghouse, National Adult Literacy Project, State evaluations, Section 310 special projects, Department of Education ERIC abstracts and other publications, as well as adult education professional literature. Through this review, it was possible to synthesize the information into summary statements needed for the instrument, as well as providing supporting material on what researchers were saying about various issues identified in the literature.

CHAPTER THREE

METHODOLOGY

Instrumentation

This component of the study describes the instrumentation, data collection, and the data analysis. Because it was decided that this study should be designed for general application to both adult education and adult literacy education, a number of research related questions were generated in formulating the instrument and the procedures for examining the data:

1. What are the research statements to be assessed?
2. What are the attitudes towards the research statements?
3. What are the research priorities?
4. What are the attitudes towards the research categories?
5. What techniques should be employed to determine these priorities?

A series of steps were undertaken to meet these criteria. First, a review of prior literature was examined for possible inclusion in this study. Second, the major categories were identified for examination. Third, the individual statements were developed and summarized. Fourth, a Likert

scale instrument was developed for participant response. Lastly, the instrument was administered and the data was analyzed. Results from this instrumentation are described in the Findings section of this report.

Based upon a synthesis of the literature review, five categories were identified for organizing and processing the research information. Those categories include:

1. Examination of the nature and extent of adult literacy.

2. Examination of the most cost-effective means for reaching the illiterate population.

3. Examination of the potential utilization of technology in adult education programs.

4. Analysis of supporting exemplary cooperative adult education programs which combine the resources of business, schools, and community organizations.

5. Development of models and means for improving adult education opportunities for elderly individuals and adult immigrants.

Following the selection of those categories, thirty-seven research related statements were generated. Subsequently, a further analysis occurred regarding their appropriateness to the instrument, and they were assigned to specified research categories. Next in sequence, was the random assignment of the statements within their designated categories.

Data Collection

The State Directors of Adult Education who are the principal operatives for the State administered adult education programs which served 3.1 million adults in FY 1986, were selected to complete this research priorities' instrument. Given their operational types of concern, it was thought that those Directors could perform a valuable service by providing their input into the prioritization of these research statements.

The method selected for obtaining responses from the State Directors of Adult Education was to initially distribute the instruments during the four Area Conferences conducted by the Division of Adult Education in the Spring of 1986. Secondly, a follow-up effort was conducted during the July 1986 State Directors' Conference in Washington, D.C. to obtain additional responses. It was determined that a relatively high rate of return could be obtained by distributing blind copies of the instrument to the State Directors for voluntary completion. Through the initial distribution and personal follow-up efforts, a 45.6% rate of return (27 out of 57) was obtained which was sufficient for the purposes of this study.

Data Analysis

A five-point variation of the Likert scale was selected for usage in assessing the respondents' agreement/disagreement with the selected statements. Each statement was then scored on a five point scale ranging through Strongly Disagree- 0, Disagree - 1, Undecided - 2, Agree - 3, and Strongly Agree - 4. Scores assigned to the descriptive statements were then utilized for the data analysis.

Upon examining the initial outcomes of the analysis, it was determined that the information could become more meaningful by collapsing the five descriptors into the three classifications of Strongly Disagree/Disagree, Undecided, and Agree/Strongly Agree. Consequently, the mean score for each of the statements remained constant; but the percentage distribution of responses becomes more pronounced for the lower and upper values computed for each statement.

Results from the data collected were sufficient to obtain a computed mean score for each statement, a rank order listing for all statements, percentage distribution of responses for the three classifications accorded each statement, and the number of responses obtained for each statement. Finally, a mean score was computed for all of the five designated categories to reveal their ranked perception of importance in supporting future research endeavors.

CHAPTER FOUR

FINDINGS

Introduction

This portion of the study treats the data in relationship to the prioritization of the thirty-seven research statements. Data from the respondents has been aggregated and compiled in five tables specifying statement rankings and mean scores. Accompanying those tables, (Tables 1-5), are two additional summative tables (Tables 6 and 7), that list the highest ranked statements and the categorized mean scores. Due to the number of categories and statements encompassing critical issues, it was important to assess several ratings within each category. Through this process, the value of this study could transcend its existing boundaries in subsequent prioritization of research topics essential for accomplishing other specified goals and purposes.

The Nature and Extent of Adult Literacy

Data from Table 1 revealed a Strongly Agree/Agree rating by 2/3 of the respondents in six out of seven statements. All statements except Statement 1.6 met that criterion. Further analysis revealed that four out of the six highest ranked statements in the instrument were also contained in Table 1. Those four numbered statements and their mean scores in descending order were: 1.3(3.04), 1.7(3.00), 1.5 (2.96), and 1.1(2.92). There was a strong relationship between Statement 1.3 focusing on recruitment

TABLE 1. Examination of the Nature and Extent of Adult Literacy

Statements	Priority Rankings By State Directors: All Statements	Priority Rankings By State Directors: Within Category	Percentage Distribution: Strongly Agree/ Agree	Percentage Distribution: Undecided	Percentage Distribution: Strongly Disagree	Number of Responses	Mean
1.1 Conduct a study to identify adult literacy factors that contribute towards or inhibit personal and community related quality of life outcomes for students.	6	4	76	16	8	25	2.92
1.2 Examine the behavioral experiences of undereducated adult learner to ascertain needed types of support and the best means for providing them.	27	7	69	16	15	26	2.34
1.3 Identify the characteristics of illiterates that may be related to their enrollment and persistence in a literacy program for usage in developing new strategies for recruitment and student retention.	2	1	69	23	8	26	3.04
1.4 Investigate promising and needed research in literacy development during childhood and adulthood to encompass real life requirements essential for literacy demands.	12	6	73	15	12	26	2.77
1.5 Examine the relative importance of determinants of program participation to provide quantitative picture of barriers to participation.	4.5	3	73	12	15	26	2.96

TABLE 1. Examination of the Nature and Extent of Adult Literacy - Cont.

Statements	Priority Rankings By State Directors: All Statements	Priority Rankings By State Directors: Within Category	Percentage Distribution: Strongly Agree/ Agree	Percentage Distribution: Undecided	Percentage Distribution: Strongly Disagree	Number of Responses	Mean
1.6 Analyze adult literacy models that address the interaction between the individual culture and the larger social forces permeating the complex lives of adult students.	35	8	38	31	31	26	2.08
1.7 Analyze existing research which focuses upon identifying the differences in the development of literacy skills among adult beginning readers and children, based upon existing research in reading strategies.	3	2	73	12	15	26	3.00
1.8 Develop and test literacy development methodologies for adults learning to read that could be utilized in improving teaching practices in adult literacy programs.	10	5	66	19	15	26	2.81

and student retention, and Statement 1.5 which would examine the barriers to participation. The relative high ranking for Statement 1.7 - second within the category and third for all statements, reveals a high concern for identifying the differences in the development of literacy skills among adult beginning readers and children. Nearly three-quarters (73%) of respondents dsignated the highest rating classification, Strongly Agree/Agree, to that statement.

Based upon the finding that 76% of the respondents rated Statement 1.1 Strongly Agree/Agree, the demonstrated interest in outcome studies could be acted upon with a high likelihood of success. In this type of a study the cooperation of State and local directors was essential in obtaining high rates of returns from former participants (Haley and Mahaffey). For 66% of the respondents, Statement 1.8 was rated Strongly Agree/Agree, revealing a need for improvement of teaching methodologies in adult literacy programs. Although Statement 1.4 ranked sixth in this category and twelfth overall, the findings reveal that real life requirements essential for literacy demands are clearly in need of further examination.

Cost-Effective Means for Reaching the Illiterate Population

An analysis of Table 2 revealed a .80 difference in mean scores between Statement 2.5 (mean 2.80) which was the highest ranked, to Statement 2.9 (mean 2.00) which was the lowest ranked statement. More than four-fifths (85%) of the respondents perceived the importance of Statement 2.5 by rating it Strongly Agree/Agree, with a mean of 3.23. As indicated,

TABLE 2. Examination of the Most Cost-Effective Means for Reaching the Illiterate Population

Statements	Priority Rankings By State Directors: All Statements	Priority Rankings By State Directors: Within Category	Percentage Distribution: Strongly Agree/ Agree	Percentage Distribution: Undecided	Percentage Distribution: Strongly Disagree	Number of Responses	Mean
2.1 Analyze the extent to which literacy instruction occurs in various adult education activities and identify those agencies and organizations that could become involved in coordinating literacy efforts among the functionally and marginally illiterate population.	11	3	80	4	16	25	2.80
2.2 Conduct a cost-benefit analysis of Section 310 set-aside programs to assess student impact data and other qualitative and quantitative indicators.	30	7	42	29	29	24	2.29
2.3 Conduct an analysis of policy options that would be most responsive to the increased costs associated with delivering services to rural areas.	29	6	46	27	27	26	2.31
2.4 Conduct an analysis of collaborative models and methods of coordination that best serve rural communities.	31	8	48	24	28	25	2.28
2.5 Examine student outreach and recruitment strategies that would be most effective in encouraging ABE participation by the undereducated, special populations, and adults with learning disabilities.	1	1	85	8	7	26	3.23

TABLE 2. Examination of the Most Cost-Effective Means for Reaching the Illiterate Population - Cont.

Statements	Priority Rankings By State Directors: All Statements	Priority Rankings By State Directors: Within Category	Percentage Distribution: Strongly Agree/ Agree	Percentage Distribution: Undecided	Percentage Distribution: Strongly Disagree	Number of Responses	Mean
2.6 Conduct an investigation and analysis of successful rural adult education programs.	17	5	58	35	7	26	2.65
2.7 Conduct an analysis of the barriers to participation in adult education and determine the extent to which ancillary services such as transportation and child care increase/decrease student participation.	7.5	2	73	8	19	26	2.89
2.8 Examine the feasibility for embedding adult education instructional materials into community helping networks that expand literacy services.	16	4	65	23	12	26	2.69
2.9 Develop a validated model for recruiting literacy volunteers that would increase and enhance educational opportunities for adults residing in rural areas.	36	9	42	23	35	26	2.00

student outreach and recruiting strategies that would be most effective in encouraging ABE participation was the highest rated statement within Table 2 as well as for all other categories. Closely related to recruitment was Statement 2.7 with a mean of 2.89 and a priority ranking of 7.5 that would analyze the barriers to adult education participation such as transportation and child care. Nearly three-fourths (73%) of the respondents assigned a Strongly Agree/Agree rating to that statement.

Statements 2.1 and 2.8 ranked third and fourth respectively, within Table 2. It was deemed important by 80% of the respondents that those agencies and organizations that could become involved in coordinating literacy efforts among the functionally and marginally illiterate population (Statement 2.1) be further examined. Statement 2.8 (Mean 2.69) recognized the importance for embedding adult education instructional networks that expand literacy services was fourth ranked in Table 2, and sixteenth ranked among all statements.

Although recruiting literacy volunteers for adults in rural areas (Statement 2.9) ranked ninth within this category and thirty-sixth for all statements, this relatively low ranking may be an indicator that they are needed most when the demand for their services has increased. While the scope of this statement was limited, one may question whether or not it would have been more highly regarded if it were related to a concomitant increase in the demand for tutoring services. This statement was also rated prior to Project Literacy U.S. (PLUS), a major national media outreach project that started in September 1986 which subsequently increased the demand for tutoring.

Potential Utilization of Technology

Findings from Table 3 revealed the three highest ratings were particularly concerned with maximimizing the application of technology in expandi g the delivery system (Statement 3.5); analyzing instructional gains (Statement 3.1); and assessing strengths, limitations, and biases of instruction (Statement 3.6). Seven of the eight statements within this category received a Strongly Agree/Agree rating from more than fifty percent of the respondents. The potential value of Statement 3.5 (mean 2.96) for employing technology was perceived by seventy-seven percent of the respondents as a basis for expanding the delivery system. The second highest identical ratings of Strongly Agree/Agree (sixty-nine percent) were assigned to Statement 3.6 - assessment of computer technology, and Statement 3.7 - the effectiveness of computer-assisted instruction in teaching different ABE populations.

The .12 mean difference between Statement 3.6 (2.85) and Statement 3.7 (2.73) was more pronounced in the overall rankings of the statements than was found within this category. Newer approaches to the utilization of technology were clearly evident by fifty-four percent of the respondents who assigned Strongly Agree/Agree ratings to Statement 3.3 and fifty-eight percent designating a similar rating to Statement 3.8.

The competitive learning approach literacy model for Statement 3.3 could have potential for further development. Current methodologies may be under utilizing that approach to learning as a means for motivating current and potential adult students. Some of that learning competitiveness and

TABLE 3. Examination of the Potential Utilization of Technology in Adult Education Programs

Statements	Priority Rankings By State Directors: All Statements	Priority Rankings By State Directors: Within Category	Percentage Distribution: Strongly Agree/ Agree	Percentage Distribution: Undecided	Percentage Distribution: Strongly Disagree	Number of Respondents	Mean
3.1 Conduct an analysis of adult learning gains obtained from computer-assisted instruction as compared to the gains from traditional approaches to learning.	7.5	2	65	19	16	26	2.89
3.2 Assess the linkages between the cognitive, ideological, and socialization processes and determine the extent to which they influence the learning environment.	33	8	39	31	30	26	2.15
3.3 Develop a "competitive learning approach" literacy model which could capitalize upon the adult national interest in competitive sports, and would utilize enhanced media involvement in this learning process.	20	5	54	35	11	26	2.58
3.4 Develop and implement a model literacy action plan that could assess State, city, and neighborhood achievement in adult literacy.	23	7	54	31	15	26	2.46

TABLE 3. Examination of the Potential Utilization of Technology in Adult Education Programs - Cont.

Statements	Priority Rankings By State Directors: All Statements	Priority Rankings By State Directors: Within Category	Percentage Distribution: Strongly Agree/ Agree	Percentage Distribution: Undecided	Percentage Distribution: Strongly Disagree	Number of Respondents	Mean
3.5 Analyze successful literacy approaches for employing technology in adult education to serve as a basis for expanding the delivery of adult literacy instructional systems.	4.5	1	77	19	4	26	2.96
3.6 Conduct and assessment of the technology of instruction from computers to diagnostic/prescriptive methods, including their strengths, limitations, and biases.	9	3	69	19	12	26	2.85
3.7 Conduct a study of the effectiveness of literacy oriented efforts in computer-assisted instruction and television in teaching different ABE populations.	13	4	69	23	8	26	2.73
3.8 Develop interactive videodisc models for adult education.	21	6	58	19	23	26	2.57

achievement may also be captured through the interactive videodisc models (Statement 3.8) which was sixth ranked for Table 3 and twenty-first for all statements. Clearly those two statements are indicative of further developmental types of research for program improvement. Explanations for the lower ratings for Statement 3.4 (seventh) and Statement 3.2 (eighth) would appear to focus upon a delayed return on the investment of time and resources or that considerable activity would be needed to effectively utilize the results of those findings.

Cooperative Adult Education Programs

The highest mean scores (2.72) within Table 4 were identical for Statements 4.6 and 4.7. Each of those statements dealt with the development of a model; i.e., for establishing a national alliance to promote collaboration (Statement 4.6) and a State alliance to provide for training and technical assistance (Statement 4.7).

More than two-thirds of the respondents (72% and 68% respectively) rated those items Strongly Agree/Agree. Identical mean scores (2.60) were also computed for Statements 4.2 and 4.4; both statements were ranked 3.5 for this category. Sixty percent of the respondents rated Statement 4.4 as Strongly Agree/Agree as compared to fifty-six percent awarding that rating for Statement 4.2. For both of those statements, only sixteen percent of the respondents rated them Disagree/Strongly Disagree.

TABLE 4. Analysis of Supporting Exemplary Cooperative Adult Education Programs Which Combine the Resources of Business, Schools, and Community Organizations

Statements	Priority Rankings By State Directors: All Statements	Priority Rankings By State Directors: Within Category	Percentage Distribution: Strongly Agree/ Agree	Percentage Distribution: Undecided	Percentage Distribution: Strongly Disagree	Number of Respondents	Mean
4.1 Develop generic training models for administrators and professional staff which include a planning framework, needs assessment, goals and objectives, outcomes, and community partnerships.	25	5	56	28	16	25	2.39
4.2 Develop models for the coordination of ABE efforts with education and community agencies and with other business and labor groups that could assist State agencies in the development of collaborative legislation.	18.5	3.5	56	28	16	25	2.60
4.3 Develop models for interstate communication, training, and networking for a regional literacy project.	26	6	50	38	12	24	2.38
4.4 Develop models for coordination that would facilitate the development of technical assistance and resources.	18.5	3.5	60	24	16	25	2.60
4.5 Develop a model for the establishment of a national alliance of literacy programs, services, and associations that would serve to promote coordination at national, State, and local levels.	37	7	36	28	36	25	1.92

TABLE 4. Analysis of Supporting Exemplary Cooperative Adult Education Programs Which Combine the Resources of Business, Schools, and Community Organizations - Cont.

Statements	Priority Rankings By State Directors: All Statements	Priority Rankings By State Directors: Within Category	Percentage Distribution: Strongly Agree/ Agree	Percentage Distribution: Undecided	Percentage Distribution: Strongly Disagree	Number of Respondents	Mean
4.6 Develop a model for the establishment of a national alliance that would serve to promote coordination at national and local levels.	14.5	1.5	72	76	12	25	2.72
4.7 Develop a model for State level literacy alliance that could effectively provide training and technical assistance to local literacy organizations.	14.5	1.5	68	16	16	25	2.72

Ranking fifth in priority was Statement 4.1 that referred to the development of generic training models for administrators and professional staff. Perhaps the extensive scope of the nature of the projected activity or the usage of the term "community partnership" rather than "community linkages" may have weakened some of its potential for development. Developing regional models for communicating, training, and networking (Statement 4.3) was favorably rated by fifty percent of the respondents through their Strongly Agree/Agree ratings. A number of literacy networks and models are already in existence; and this rating (seventh) indicates that new models are not urgently needed. Further, the results of this project could have been perceived to make only marginal increments of improvement in regional literacy projects.

Table 4 also contained item 4.5 which ranked thirty-seventh, or last, among all statements. Respondents may have perceived numerous complexities involved in developing a national model for the alliance of literacy programs, services, and associations referred to in Statement 4.5. This low ranking indicates further efforts to achieve this goal may be better concentrated upon coordinating those agencies and allocating resources through a national thrust, such as Project Plus or The Secretary's Initiative on Adult Literacy, rather than developing another model to achieve this purpose.

Adult Education Opportunities for the Elderly and Adult Immigrants.

Priority rankings for statements in Table 5 ranged from twenty-two to thirty-four with a range of means from 2.54 (Statement 5.2) to 2.13 (Statement 5.1). Sixty-two percent of the respondents rated Statement 5.2 as Strongly Agree/Agree representing the highest preference statement in Table 5. Preference was clearly shown within this cluster for developing a model that would improve outreach services to adult immigrants.

Statement 5.3 revealed fifty-four percent of respondents awarded a Strongly Agree/Agree rating for increasing elderly access to adult education. Third in importance was Statement 5.34 for increasing outreach literacy services and programs to elderly adults, with fifty of the respondents rating this statement Strongly Agree/Agree. Relatively low means for Statements 5.5 (2.21) and 5.1 (2.13) provided fourth and fifth rankings within the category, and thirty-second and thirty-fourth rankings for all statements. Those revelations reflected varying State demands for providing increased access or effective means of instructing immigrants.

Nationally, however, there are two factors that would suggest further examination of this rating. First, limited English proficient adults represent 1,267,355 (forty-two percent) of the 3,035,065 adult education program enrollments during FY 1986. Second, the recent enactment of the Immigration Reform Act of 1986 changed the status of approximately 2,900,00 eligible legalized aliens and 850,000 special agricultural workers.

TABLE 5. Development of Models and Means for Improving Adult Education Opportunities for Elderly Individuals and Adult Immigrants

Statements	Priority Rankings By State Directors: All Statements	Priority Rankings By State Directors: Within Category	Percentage Distribution: Strongly Agree/ Agree	Percentage Distribution: Undecided	Percentage Distribution: Strongly Disagree	Number of Respondents	Mean
5.1 Conduct a longitudinal study to ascertain the most effective means of instructing adult immigrants.	34	5	38	33	29	24	2.13
5.2 Develop a model for improving outreach literacy services to adult immigrants in need of adult education.	22	1	62	21	17	24	2.54
5.3 Develop a model for increasing elderly access to adult education programs.	24	2	54	21	25	24	2.41
5.4 Develop models for increasing outreach literacy services and programs to elderly adults.	28	3	50	25	25	24	2.33
5.5 Develop models that focus on improving opportunities for adult immigrants to increase access to adult education programs.	32	4	46	25	29	24	2.21

Under that Act, many of those adults will need citizenship and English language training which could portend new and increased opportunities for adult education. It should also be noted that this legislation was enacted in October 1986 which was several months after this instrument was completed. Prior knowledge of this high level national concern could doubtlessly influence some of the ratings on this topic in a subsequent analysis.

Priorities for Research.

Through an examination of the means for the thirty-seven statements contained in Tables 1 through 5, it was possible to identify the six highest ranked statements and list them in priority as shown in Table 6. Summarily, the mean difference between Statement 2.5 with the highest mean of 3.23 and Statement 1.1, the sixth highest mean of 2.92, was .31. Between statements 1.3 and 1.7, there was only a .04 mean difference. A similar difference (.04) was noted between the third and fourth ranked statements; while statements 1.5 and 3.5 (fourth and fifth ranked) received identical means of 2.96.

The concern of the respondents in selecting student outreach and recruitment as the most important statement clearly recognizes the difficulties involved in recruiting students throughout the United States. Inherent within this ranking was the realization that new techniques and strategies are also needed to ensure recruitment of various populations including the undereducated, special populations, and adults with learning disabilities to carry out the intent of the Act.

TABLE 6. - The Six Highest Ranked Statements for Research Priorities

Item	Statement	Rank	Mean
2.5	Examine student outreach and recruitment strategies that would be most effective in encouraging ABE participation by the under-educated, special populations, and adults with learning disabilities.	1	3.23
1.3	Identify the characteristics of illiterates that may be related to their enrollment and persistence in a literacy program for usage in developing new strategies for recruitment and student retention.	2	3.04
1.7	Analyze existing research which focuses upon identifying the differences in the development of literacy skills among adult beginning readers and children, based upon existing research in reading strategies.	3	3.00
1.5	Examine the relative importance of determinants of program participation to provide a quantitative picture of barriers to participation.	4.5	2.96
3.5	Analyze successful literacy approaches for employing technology in adult education to serve as a basis for expanding the delivery of adult literacy instructional systems.	4.5	2.96
1.1	Conduct a study to identify adult literacy factors that contribute toward or inhibit personal and quality of life outcomes for students.	6	2.92

A possible companion study (Statement 1.3) that relates the characteristics of adults to the development of new strategies for recruitment and retention ranked second in importance with a mean of 3.04. This cumulative effect of both factors should not go unnoticed. Priorities 3 through 6 dealt with a mix of options, analyzing existing research, barriers to participation, technology, and life outcome studies. These are clear indicators of a need for utilizing the results of current research findings in a format that would put research to work in improving adult education programs.

Through an analysis of the barriers to participation contained in Statement 1.5, additional revelations could surface indicating why more of the fifty-three million adults with less than a high school diploma are not participating. Perhaps technology (Statement 4.5) could furnish additional options and solutions to this enigma. Lastly, the candid importance of Statement 1.1 reveals a high measure of accountability by the respondents to ensure the program makes a difference in the lives of the participants.

Categorical Ratings.

Means for the five research categories presented in Table 7 ranked from a high of 2.74 - Nature and Extent of Adult Literacy, to the fifth ranked category - Elderly and Adult Immigrants, with a mean of 2.32. The .42 range in means was greater in Table 7 than was reported in Table 6 (.31) for the individual research statements.

Table 7. Summary Ratings of the Five Research Categories.

Category	Mean
1. Examination of the Nature and Extent of Adult Literacy.	2.74
2. Examination of the Most-Cost Effective Means for Reaching the Illiterate Population.	2.57
3. Examination of the Potential Utilization of Technology in Adult Education Programs.	2.65
4. Analysis of Supporting Exemplary Cooperative Adult Education Programs Which Combine the Resources of Business, Schools, and Community Organizations.	2.48
5. Development of Models and Means for Improving Adult Education Opportunities for the Elderly and Adult Immigrants.	2.32

Surprisingly, the data in Table 7 revealed the means for each of the five categories were all less than the means reported for the priority statements contained in Table 6. On that basis, it would be more useful to support the research statements for development rather than the research categories. Four of the six highest ranked statements in Table 6 were extracted from the second ranked category in Table 7; while the first

and third categories each had one statement included among the six highest ranked priorities.

Summary.

Additional benefits could be obtained from Tables 1 through 5 by identifying one or more highly ranked statements within a particular category. More definitive information concerning those statements was previously described in the analysis of Tables 1 through 5. Summarization of the statements that were ranked seventh through twelfth, with their designated statement number, follows: 2.7 - barriers to participation, 3.1 - gains from computer-assisted instruction, 3.6 - assessment of the technology of instruction, 1.8 - improving teaching practices, 2.1 - literacy instruction in agencies, and 1.4 - needed research in literacy development. A more detailed review of those statements would enable the reader to more closely identify related concerns for examination or quite possibly even delimiting portions of the statements to make them more manageable.

CHAPTER FIVE

CONCLUSIONS

Findings.

The six ranking research priorities identified through this study are indicative of the current research needs perceived by the State Directors of Adult Education for National Discretionary Projects. A summary of those research priorities in rank order was presented in Table 6. A capsule summary of those statements follows:

1. Examine student outreach and recruitment strategies.
2. Identify characteristics of illiterates related to their enrollment.
3. Analyze existing research identifying developmental reading skills.
4. Examine the importance of determinants to program participation and barriers to participation.
5. Analyze successful literacy approaches for employing technology in delivery systems.
6. Identify adult literacy factors that contribute toward or inhibit personal and quality of life outcomes for students.

Lessons learned from this study revealed the complexity of certain types of topics as well as their perceived needs. Adult educators realized the importance of recruiting and retention; because without their continued emphasis, the program could not continue to expand or quite possibly,

witness a diminution of effort in serving the adult population. There are many millions of potential students who are not presently being served by the program, and understanding more about the barriers to participation could enhance the total program. Appropriately, technology has a role to play and its role could be further specified to maximize its potential capacity in serving new adult learners. The sensitivity of the respondents to the examination of life outcomes goes well beyond accountability requirements; it is the essence of determining how well we are doing in terms of helping adults function in our technological society.

Recommendations.

From this research a number of priorities were identified as guides for development, demonstration, or evaluation projects in State and Federal discretionary programs in adult education. Other adult education researchers may also wish to use this information as a means for improving independent research activities leading to program improvement. Because the statements were identified in a rank order format, the six highest priorities were assembled in Table 6. Beyond that listing, were the second cluster of priorities; i.e., those ranked from seventh to twelfth in priority that were alluded to in Chapter Four. That supplemental listing could prove extremely beneficial in strengthening certain aspects of the adult education program.

A further synthesis of information is next presented that would reorder those highest listed statements into a typology consisting of context, input, process, and output components. A summary of the key elements in those components follows:

- Context - Analyze the literacy instruction in adult education agencies and organizations, and investigate needed research in literacy development.

- Input - Examine the factors relating to the Input- recruitment and retention of students; and analyze barriers to participation.

- Process - Analyze the Process - Reading strategies and differences among adult beginning readers and children, assess the technology of instruction, and identify literacy development methodologies for improving teaching practices.

- Outcomes - Identify cost effective means for reaching the illiterate population, and determine factors that contribute towards or inhibit personal and quality of life outcomes.

A further analysis of the prioritized statements could be undertaken to assess the extent to which they address these criteria:

- o Urgency for completing study.
- o Responsiveness to identifiable program weaknesses.
- o National vs. local or State need.
- o Usefulness of project outcomes to the program.
- o Assessing the impact of the program among participants.

Information from this analysis could become useful in determining still further which priorities could be most influential to the program.

Conclusions

Perceptions of the State Directors of Adult Education revealed their collective concerns for program improvement in terms of measures that could have a long term impact upon adult education. Permeating this analysis was a strong preference for activities with immediate rather than delayed or tangentially related outcomes. Complex items that were perceived as being high risk or low yield received more Undecided and Disagree/Strongly Disagree ratings. Further benefits from Section 310 special projects and teacher training projects may be realized through a greater dissemination of those products and their findings. In still other instances, there may be potentially major program innovations that have been identified; but they are in need of further development or field testing to maximize their usefulness to practitioners. Advanced training of teacher trainers

and project directors may need further examination to identify how the results of research can be most beneficial to them in improving their training effectiveness and future project outcomes.

Lastly, an assessment of the effectiveness of Section 310 Projects may be conducted as one means of determining their effectiveness and impact in achieving their objectives. Finally, through this procedure for identifying research priorities, the research community may be encouraged to select topics for investigation that could have an immediate and useful application to the adult education program. In other instances, a secondary analysis of data and findings from pertinent studies may yield benefits beyond those that have previously been identified and would require only a limited allocation of resources. Certainly the transferability of major components of educational technology in adult education has tremendous potential for more detailed analysis in order to transcend some of the barriers presently inhibiting their adoption.

In summary, the perception of the State Directors was obtained for valuable input into the identification of research priorities. Those findings were analyzed for the purposes of expanding research into areas that could yield additional promising practices and outcomes for strengthening adult learning in the next decade. Information from this study could be useful in enabling adult education to fulfill its vital role in empowering adult learners. For students, new knowledge and skills will

better equip them to deal with the technological explosions of the 1980's and the decade beyond; trainers will be concerned with providing their learners with what they need to know - sapiential knowledge, for effectiveness in instructing adults; and lastly, administrators will focus upon the impact of their comulative learning experiences so that they can demonstrate administrative accountability. The need for focusing attention on activities that can be undertaken through research, demonstration, development, and evaluation has been identified through this study to facilitate future action in improving adult education learning and programs.

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